

CUSTOMER NO.: 24498  
Serial No. 10/584,686  
Office Action dated: 4/13/10  
Reply dated: 07/09/10

PATENT  
PD040005  
JUL 12 2010

This listing of the claims will replace all prior versions and listings of the claims in the application:

1. (Currently Amended) Method for analyzing an abnormal region on an optical recording medium, including the steps of:
  - detecting a the change from a normal to an abnormal region;
  - making a scan perpendicular to the track direction over the abnormal region in response to the detecting step until a normal region is reached at the end of the scan;
  - obtaining information on the type of abnormal region during the scan by evaluating a track crossing signal;
  - determining the radial extension of the abnormal region perpendicular to the a track direction; and
  - determining the type of the abnormal region based on the information obtained during the scan.
2. (Original) Method according to claim 1, wherein the step of determining the type of the abnormal region further includes:
  - differentiating between a first group of types and a second group of types of abnormal region based on the obtained information.
3. (Previously Presented) Method according to claim 1, wherein the step of obtaining information on the type of abnormal region during the scan further includes evaluating a data signal obtained from the optical recording medium.
4. (Previously Presented) Method according to claim 1, wherein the step of measuring the radial extension of the abnormal region includes one of:
  - measuring the time needed for scanning over the abnormal region; and
  - counting a number of pulses emitted by a phase locked loop during scanning over the abnormal region, the phase locked loop replicating a track crossing signal obtained before reaching the abnormal region in the scanning step.

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5. (Original) Method according to claim 1, further including the steps of:

- jumping back to the start of the abnormal region;
- reading data stored in the abnormal region; and
- evaluating the data for determining the type of abnormal region.

6. (Original) Method according to claim 5, wherein the step of evaluating the data for determining the type of abnormal region includes at least one of:

- evaluating a sync signal included in the data; and
- evaluating the data frequency in the abnormal region.

7. (Original) Method according to claim 5, wherein the step of measuring the radial extension of the abnormal region includes counting the number of wrong syncs in the abnormal region.

8. (Original) Method according to claim 1, further including the step of storing the position, the radial extension and/or the type of the abnormal region on the optical recording medium.

9. (Original) Method according to claim 1, wherein the types of abnormal region include at least one of a groove region, a mirror region, a defect region, a wrong bitrate region and a wrong structure region.

10. (Cancelled)

11. (Cancelled)

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12. (Currently Amended) Method according to claim 2, wherein the step of differentiating between a first group of types and a second group of types of abnormal region based on the obtained information includes:

- classifying an abnormal region as belonging to the first group of types if an evaluation of the abnormal region does only take a short time compared with the evaluation of the abnormal region in the second group of types; and
- otherwise classifying an abnormal region as belonging to the second group of types else.

13. (Cancelled)

14. (Currently Amended) Method according to claim 1, further including the steps ~~step~~ of:

- differentiating between a first group of types and a second group of types of abnormal region based on the obtained information, wherein
  - an abnormal region is classified as belonging to the a first group of types if the abnormalities of the detected signal are caused by the physical characteristics of the recording medium; and
  - an abnormal region is classified as belonging to the a second group of types if the abnormalities of the detected signal are caused by erroneous data.